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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* KEVIN S. BEYER, ELIZABETH B. HAMEL,  
BRUCE G. LINDSAY, and CLARENCE M. PRUET III

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Appeal 2009-004879  
Application 10/788,556  
Technology Center 2100

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*Before* ST. JOHN COURTENAY III, THU A. DANG, and  
CAROLYN D. THOMAS, *Administrative Patent Judges*.

THOMAS, *Administrative Patent Judge*.

DECISION ON APPEAL

## STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from a final rejection of claims 1-47 and 50-88. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM-IN-PART.

According to Appellants, the invention relates to “the maintenance of multiple copies of tabular data” (Spec. 1:2). More particularly, the invention involves “the asynchronous copying of data changes in one or more data copies to the other copies of the data” (Spec. 1:3-4).

Claim 1 is illustrative:

1. A computer-implemented method for providing convergence of multiple copies of a table to a same state in a database system, the database system including a plurality of nodes each having a corresponding copy of the table, the method comprising:

for each row of each table copy,

associating a timestamp with the row, the timestamp indicating a time when a change to the row has occurred;

associating a copy identification to the row, the copy identification being an identifier that uniquely identifies the table copy to which the row belongs; and

associating propagation controls with the row, the propagation controls indicating whether a change to the row should be communicated to other table copies based at least in part on the timestamp of the change or the copy identification associated with the row;

asynchronously capturing a change to a row of a given table copy from a database recovery log, the database recovery log containing an entry that describes the change to the row of the given table copy;

determining that the captured change to the row of the given table copy is to be communicated to other table copies in the database system, the determination being made in accordance with the indication of the propagation controls associated with the changed row of the given table copy;

communicating the captured change to the other table copies in the database system; and

applying the communicated change to the other table copies in the database system, wherein each table copy in the database system converges to a same state.

### *Rejections*

R1: Claims 1-39 and 50-87 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Appellants regard as the invention.

R2: Claims 1-5, 7-47, and 50-88 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Jain (U.S. 5,806,075, Sep. 8, 1998).

### ANALYSIS

#### *Claims 1-39 and 50-87 §112, second paragraph*

Issue 1: Did the Examiner err in finding that the phrase “based at least in part on,” as set forth in representative claim 1, renders claim 1 indefinite?

The Examiner concludes that claims 1 and 50 are indefinite (1) “because neither the claim nor the specification explains what ‘at least in part’ means” (Ans. 3) and (2) because “[t]he phrase ‘at least in part’ by its v[e]ry nature is vague and indefinite (Ans. 30). Additionally, the Examiner concludes that the phrase “at least in part” “does not define to a great degree the role played by the timestamp of the change or the copy identification ... in the process of indicating whether a change to the row should be communicated to other table copies ...” (*see* Ans. 30) (emphasis omitted).

Appellants argue that “the limitation ‘at least in part’ is clear on its own terms as set forth in the claim” (App. Br. 6). We agree.

The fact that claim language, including terms of degree, may not be precise, does not automatically render the claim indefinite under 35 U.S.C. § 112, second paragraph. *Seattle Box Co. v. Industrial Crating & Packing, Inc.*, 731 F.2d 818, 826 (Fed. Cir. 1984). Rather, whether claim terms are indefinite depends on whether one of ordinary skill in the art would understand what is claimed, in light of the Specification. In this case, we do not agree with the Examiner that one of ordinary skill in the art would not understand the meaning of the phrase “based at least in part on” given the ordinary and common usage of such term. For example, the ordinary and common meaning of the phrase “based at least in part on” suggests basing your determination on a minimum criterion, i.e., a timestamp in this case. In addition, the breadth of a claim is not to be equated with indefiniteness. *In re Miller*, 441 F.2d 689, 693 (CCPA 1971).

We therefore conclude that the Examiner erred in rejecting claims 1-39 and 50-87 as being indefinite because one of ordinary skill in the art would understand that the recited “based at least in part on” clearly requires

that the propagation controls be based at least in part on the timestamp or the copy identification.

Accordingly, we reverse the Examiner's §112, second paragraph rejection of independent claims 1 and 50, and claims 2-39 and 51-87 which stand therewith.

*Claims 1-5, 7-47, and 50-88*  
*§ 102 Rejection*

Issue 2: Did the Examiner err in finding that the Jain reference teaches “asynchronously capturing a change to a row of a given table copy from a database recovery log, the database recovery log containing an entry that describes the change to the row of the given table copy,” as set forth in claim 1?

Appellants argue that “[t]he Examiner has failed to show that Jain discloses asynchronously capturing a change to a row of a given table copy from a database recovery log, in which the database recovery log contains an entry that describes the change to the row of the given table copy” (App. Br. 8-9). The Examiner found that in Jain the “recovery log, i.e., redo log, contains undo information, wherein [such] information [] can be used to roll back changes made to data after an event, ... [and] is equivalent to capturing a change to a row of a given table copy” (*see* Ans. 5, emphasis omitted).

The Examiner directs our attention to column 7 of Jain, and found that Jain discloses a “transactional recovery log,” i.e., a redo log, to retain and identify the database modification for propagation (column 7, ll. 7-9). In essence, the Examiner found that Jain’s disclosed “redo log” performs the

same function as the claimed “database recovery log.” In response to the Examiner’s findings, Appellants merely contrast the prior art “redo log” and Jain’s preferred technique for using a table of the database system (App. Br. 7-8). However, Appellants fail to rebut why the “redo log” is distinguishable from the claimed “database recovery log,” or why the Examiner’s findings are in error. Instead, Appellants merely describe the Jain reference without providing any meaningful analysis why the claimed invention is distinguishable therefrom.

Thus, Appellants have failed to rebut the Examiner’s specific findings, thus showing that the Examiner erred in finding that Jain discloses “asynchronously capturing a change to a row of a given table copy from a database recovery log, the database recovery log containing an entry that describes the change to the row of the given table copy,” as set forth in claim 1.

#### DECISION

The Examiner’s rejection of claims 1-39 and 50-87 under 35 U.S.C. § 112, second paragraph is reversed.

The Examiner’s rejection of claims 1-5, 7-47, and 50-88 under 35 U.S.C. § 102(b) is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2009).

#### AFFIRMED-IN-PART

Vsh